

Infantile hemangiomas

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General: Infantile hemangiomas are the most common benign vascular tumor. They are sporadic and self-limited in nature, but some may compromise vital organ function including circulatory, vision, and CNS problems. They can also cause skin ulcerations and leave permanent disfigurement. They are classified by phases of proliferation and involution; typically, rapid proliferation/growth of blood vessels in the first year of life, followed by gradual involution and replacement by fibrous/adipose tissue. Most hemangiomas completely involute by the ages of 5-9. Hemangiomas are not classified as vascular malformations; those typically do not regress.

Epidemiology/Risk factors:

- Most common tumors of infancy; true incidence unknown, but occur in approximately 5-10% of Caucasian infants
- Hemangiomas are 2-3x more common in female infants than male infants; reason unknown
- More common among Caucasian infants than other racial groups
- More common in preterm infants, especially with low birth weight
- Associated with older maternal age (AMA), placenta previa, and pre-eclampsia
- Does not appear to be associated with chorionic villus sampling

Symptoms: Most hemangiomas are not clinically evident at birth, but become apparent during the first few days to months of life. Some hemangiomas are preceded by a patch of telangiectasias with surrounding pallor. They are most commonly found on the head/neck and are generally asymptomatic. They may be superficial, deep, or a combination of both and can also be present on mucous membranes and internal organs. Most growth occurs before 5 months of age. By 3 months of age, hemangiomas have generally reached 80% of their final size. Involution of the tumor can still cause skin changes, including atrophy, scarring, discoloration, or telangiectasias.

Diagnosis: Is usually made clinically, based upon appearance. Normally, superficial hemangiomas are bright red papules or plaques with well-defined borders. However, if a biopsy is performed, superficial proliferating endothelial cells with few capillary lumina will be seen. Current evidence suggests hemangiomas result from vasculogenesis, or the formation of primitive blood vessels from angioblasts.



Treatment/Follow-up: In general, treatment for superficial hemangiomas is expectant management and parental guidance/reassurance. However, periorbital hemangiomas potentially affecting vision development should be referred to a pediatric ophthalmologist immediately. Also, if trauma with frequent bleeding, skin ulcerations, or rapid growth causing anticipated disfigurement occurs (face, lip), the patient should be referred to a dermatologist to consider topical, systemic (propranolol or glucocorticoids), or laser treatment modalities.

Resources:

UpToDate:

- Hemangiomas: http://www.uptodate.com/contents/epidemiology-pathogenesis-clinical-features-and-complications-of-infantile-hemangiomas?source=search_result&search=hemangioma&selectedTitle=1%7E150
- http://www.uptodate.com/contents/management-of-infantile-hemangiomas?source=see_link
- For patients: http://www.uptodate.com/contents/hemangioma-the-basics?source=see_link